

Example:

$H = 7.14741$ g H₂O vapor/kg dry air time weighted over the FTP test cycle

$x_{\text{NOxdexh}} = 1.21$ ppm

$$x_{\text{NOxdexhcor}} = 1.21 \cdot \frac{1}{1 - 0.0329 \cdot (7.14741 - 10.71)} = 1.08305 \text{ ppm}$$

(b) For vehicles above 14,000 pounds GVWR, apply correction factors as described in 40 CFR 1065.670.

§ 1066.620 Removed water correction.

Correct for removed water if water removal occurs upstream of a concentration measurement and downstream of a flow meter used to determine mass emissions over a test interval. Perform this correction based on the amount of water at the concentration measurement and on the amount of water at the flow meter.

§ 1066.625 Flow meter calibration calculations.

This section describes how to calibrate various flow meters based on

mass flow rates. Calibrate your flow meter according to 40 CFR 1065.640 instead if you calculate emissions based on molar flow rates.

(a) *PDP calibration.* Perform the following steps to calibrate a PDP flow meter:

(1) Calculate PDP volume pumped per revolution, V_{rev} , for each restrictor position from the mean values determined in § 1066.140:

$$V_{\text{rev}} = \frac{\bar{Q}_{\text{ref}} \cdot \bar{T}_{\text{in}} \cdot p_{\text{std}}}{\bar{f}_{\text{nPDP}} \cdot \bar{p}_{\text{in}} \cdot T_{\text{std}}}$$

Eq. 1066.625-1

Where:

\bar{Q}_{ref} = mean flow rate of the reference flow meter.

\bar{T}_{in} = mean temperature at the PDP inlet.

p_{std} = standard pressure = 101.325 kPa.

\bar{f}_{nPDP} = mean PDP speed.

p_{in} = mean static absolute pressure at the PDP inlet.

T_{std} = standard temperature = 293.15 K.

Example:

$\bar{Q}_{\text{ref}} = 0.1651$ m³/s

$\bar{T}_{\text{in}} = 299.5$ K

$p_{\text{std}} = 101.325$ kPa

$\bar{f}_{\text{nPDP}} = 1205.1$ r/min = 20.085 r/s

$p_{\text{in}} = 98.290$ kPa